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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

APR - 8 1992

Federal Communications Commission
Office of the Secretary

In the Matter of)	
)	
Amendment of Section 2.106 of the)	ET Docket No. 92-28
Commission's Rules to Allocate)	
Spectrum to the Mobile-Satellite)	PP-29
Service above 1 GHz for Low-Earth)	PP-30
Orbit Satellites --)	PP-31
Requests for Pioneer's Preference)	PP-32
by Constellation, Ellipsat, Loral)	PP-33
Motorola, and TRW)	
)	

To: The Chief Engineer

OPPOSITION TO PIONEER'S PREFERENCE
REQUEST OF MOTOROLA SATELLITE COMMUNICATIONS, INC.

CONSTELLATION Communications, Inc. ("CONSTELLATION"), by counsel, hereby submits its opposition to the request of Motorola Satellite Communications, Inc. ("Motorola") for a Pioneer's Preference for the proposed Iridium system. CONSTELLATION demonstrates in this opposition that Motorola has not demonstrated any basis for the Commission to grant it a Pioneer's Preference and that if such preference were to be granted it would inextricably prejudice the Commission's consideration of all the pending applications to construct, launch and operate low-earth orbit ("LEO") satellite systems using the 1610-1626.5 MHz and 2483.5-2500 MHz bands ("RDSS bands").

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I. BACKGROUND

The Commission currently has pending applications from Loral Qualcomm Satellite Systems, Inc. ("LQSS"), TRW, Inc. ("TRW"), Ellipsat Corporation ("Ellipsat"), AMSC Subsidiary Corporation, Motorola and CONSTELLATION seeking to utilize the RDSS bands to provide satellite communications services.^{1/} Each of these applicants proposes a unique technological and operational approach to this market. Some applicants propose the use of geostationary satellite systems, others propose LEO systems and one applicant seeks to operate a medium earth orbit system. Some of the applicants propose global service while other systems seek to optimize service to North America. The costs of these systems range from CONSTELLATION's proposed \$292 million to Motorola's \$3.5 billion. There are numerous other technical and operational differences between these applicants.

The Motorola system has three unique features that set it apart from the other applicants. First, the Motorola Iridium system can not share the RDSS spectrum with any of the

^{1/} See Loral Qualcomm Satellite Services Inc. ("Loral"), File Nos. 19-DSS-P-91 (48) and CSS-91-014 (Globalstar System); TRW, Inc. (File Nos. 20-DSS-P-91 (12) and CSS-91-015 (Odyssey System); Ellipsat Corporation ("Ellipsat") File Nos. 11-DSS-P-91-6 and 18-DSS-P-91 (18) (Ellipso); Motorola, File Nos. 9-DSS-P-91 (87) and CSS-91-010 (Iridium); Constellation, File Nos. 17-DSS-P-91 (48) and CSS-91-013 (Aries System); and AMSC, File Nos. 15-DSS-MP-91 and 16-DSS-MP-91.

other pending applicants or current users of the band. This means that if Motorola receives a pioneer's preference and its underlying application is granted, the Commission will have formally sanctioned the creation of a monopoly. Secondly, the cost of the Motorola system will be in excess of \$3 billion or almost ten times that proposed by CONSTELLATION. Third, the principal technical distinction between the Motorola system and the other applicants is not service to handheld user terminals, which all of the LEO systems will be capable of serving, but the use of inter-satellite links. The extreme complexity of Motorola's proposed system presents serious questions as to whether it will work as claimed. For this expensive, bloated, risky system design, Motorola now seeks to obtain a pioneer's preference and spectrum monopoly.

In the Pioneer's Preference Order^{2/} the Commission established a policy to encourage the development of new innovative services by providing the innovator "an opportunity to participate in the new service".^{3/} The Commission however has indicated that such preferences were not to be handed out

^{2/} Establishment of Procedures to Provide a Preference to Applicants Proposing an Allocation for New Services, 6 FCC Rcd 3488 (1991) ("Pioneer's Preference Order"), recon. in part, FCC 92-57 (released February 26, 1992) ("Recon. Order").

^{3/} 5 FCC Rcd 2766, 2767 (199).

indiscriminately but rather should only be issued to proposals with sufficient merit. A significant burden has been placed on an applicant to demonstrate that a preference should be awarded. As demonstrated below Motorola has not come close to demonstrating that it should be awarded a pioneer's preference.

II. THE GRANT OF A PREFERENCE TO MOTOROLA IS INCONSISTENT WITH COMMISSION POLICY AND RULES

The purpose prefacing the pioneer's preference rules is to provide incentives to individuals and corporations to develop new and innovative technologies and services. This incentive was to be in the form of special considerations provided to an applicant for an FCC license. It was not the Commission's intent to provide a particular applicant an exclusive nationwide opportunity to provide a specified telecommunication service. There was never any consideration of providing an applicant for pioneer's preference a monopoly right to provide a service. In fact, the most that the Commission has ever indicated that it would issue an applicant was a guarantee to be able to provide service in a single market. The Commission never specifically contemplated that

the preference holder would not face competition or be granted a nationwide monopoly.^{4/}

Given these restrictions on the nature of pioneer's preference, the Commission cannot grant Motorola a nationwide monopoly to provide mobile satellite services in the RDSS bands. As the Commission has indicated throughout the pioneer's preference proceeding, it must properly balance the policy goals of promoting innovation and competition.^{5/} The various nature of the proposed LEO systems demand that such a balance be made.

The Commission has been presented with two distinct proposals for the implementation of LEO systems. First, the Motorola approach which technical design does not allow for sharing with others in the same band. Such a system design is inconsistent with the RDSS rules which are designed to facilitate a competitive environment. Second, the CONSTELLATION, TRW, Ellipsat, Loral Qualcomm approaches which do allow for sharing and compatible with open multiple entry and the RDSS rules.

If the Commission were to grant Motorola's request, it would merely result in turning the clock back on twenty years

^{4/} Pioneer's Preference Order, 6 FCC Rcd at 3495.

^{5/} Id. at 3495 and Recon. Order at 12.

of competition in telecommunication services. Since there are a number of pioneer preference requests for LEO systems presently pending before the Commission including those capable of competitive multiple entry, it would be entirely inappropriate for the Commission to grant Motorola a pioneer's preference. The Commission recognized that if there are multiple preference requests it may better serve the public not to grant any of them.^{6/} In this proceeding, the preference would be so inextricably tied to the final resolution of the rulemaking and the Commission's consideration of the pending LEO system applications that the public interest would be best served if no preference is granted. Certainly Motorola's proposal by its very nature precludes other LEO systems and is completely at odds with the RDSS rules and the Commission's pro-competitive policies. This is not a situation for a pioneer's preference.

III. MOTOROLA HAS FAILED TO DEMONSTRATE THAT IT SHOULD BE AWARDED A PIONEER'S PREFERENCE

In its Iridium application and request for pioneer's preference, Motorola has not demonstrated that its system contains the characteristics necessary for awarding a

^{6/} Pioneer's Preference Order, 6 FCC Rcd at 3495.

preference. Nor has Motorola established that it has developed the proposed technology or that the technology even works. The only distinctive features of Motorola's system are the advanced level of spot beam technology, the intersatellite links and the bi-directional operation proposed in the application now before the Commission. Unless this combination of technologies is demonstrated in practice, commercial realities are likely to force Motorola into a less expensive, less risky design. These circumstances do not warrant the issuance of a pioneer's preference.

When the Commission adopted the pioneer's preference rules it established a list of criteria that it would examine as it evaluated pioneer's preference requests. Some of the criteria identified included added "functionality," a different use of spectrum than previously available, a change in operating or technical characteristics of a service, efficient spectrum use, spectrum sharing, speed or quality of information transfer, and reduced costs to the public.^{7/}

Like the other pending LEO applicants, Motorola seeks to implement a new and innovative service. However, unlike the other applicants, Motorola's system is inconsistent with the Commission's competitive entry and spectrum sharing policies.

^{7/} Pioneer's Preference Order at 3494.

Additionally, the Motorola's proposed system is astronomically expensive and inordinately complex and risky. These are not the characteristics that the Commission sought to promote with pioneer's preference.

Contrary to Motorola's claims, it has not developed any of the basic technology that underlies the Iridium system. Hand held communications to satellites have already been demonstrated in practice by other companies such as Geostar and Defense Systems, Inc. Low earth orbit technology was pioneered for the Department of Defense by a number of parties, including Defense Systems, Inc. Motorola is not recognized as a leading developer of such technology. Moreover, Motorola did not develop the concept of intersatellite links. These were first demonstrated through the Tracking Data and Relay Satellite System (TDRSS). Finally, numerous companies have proposed or developed multiple-spot beam technology. Given these facts, CONSTELLATION is hard pressed to identify any technological feature associated with the Iridium system that warrants the issuance of a pioneer's preference.

Additionally, Motorola has failed to demonstrate the technical viability of its system design. The Commission has indicated that a pioneer's preference will not be awarded unless an applicant has demonstrated technical viability,

commenced an experiment and reported preliminary results.^{8/} Motorola has not met any of these requirements. It has not provided any scientific information demonstrating the technical viability of its system. Nor has it provided any empirical data that confirmed the workability of its highly complex system concept or that it can ever provide the claimed services using bi-directional transmission and inter-satellite links. Furthermore, Motorola has yet to explain how it can implement and operate its system in a manner consistent with the results of the recently concluded World Administrative Radio Conference. Taken together, all of these questions about the Iridium system clearly demonstrate that a pioneer's preference can not be granted to Motorola unless the viability of the system is substantiated.

**IV. GRANT OF THE MOTOROLA REQUEST WOULD CLEARLY PREJUDICE
THE FCC'S CONSIDERATION OF THE OTHER PENDING LEO
APPLICATIONS**

At present there are six applications pending before the Commission seeking to utilize the RDSS bands for the provision of mobile satellite service. If the Commission were to make a preliminary finding that the Motorola system should receive a preference, it would at the same time make an

^{8/} Recon. Order at 5.

unfavorable finding with regard to the other pending applications. This would be a violation of the other pending applicants' statutory rights under Section 309 of the Communications Act^{2/} and the Supreme Court's ruling in Ashbacker Radio Corp. v. F.C.C., 326 U.S. 327 (1945) ("Ashbacker"). This is because the Motorola system is "mutually exclusive" with the applications of the other applicants proposing to use the RDSS bands. Prior to providing the applicants a full and fair hearing, the Commission would have opted for one system proposal because of its so-called "uniqueness." This is inconsistent with the Commission's responsibility under Ashbacker to provide all mutually exclusive applicants with a full hearing. Even if the Commission later decided to hold such a hearing, the applicants not receiving a pioneer's preference would be at a disadvantage because they would be forced to refute the Commission's findings in the pioneer's preference proceeding. Under these circumstances, the Commission statutorily can not grant Motorola a pioneer's preference.

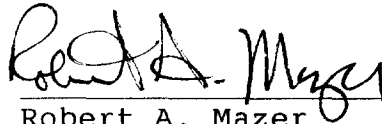
^{2/} 47 U.S.C. § 309.

CONCLUSION

For the reasons discussed above, CONSTELLATION urges the Commission to reject Motorola's request for a Pioneer's Preference for its Iridium satellite system.

Respectfully submitted,

CONSTELLATION COMMUNICATIONS, INC.

A handwritten signature in dark ink, appearing to read "Robert A. Mazer", is written over a horizontal line.

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April 8, 1992

CERTIFICATE OF SERVICE

I, Robert A. Mazer, hereby certify that a copy of the foregoing Opposition to Pioneer's Preference Request of Motorola Satellite Communications, Inc. of Constellation Communications, Inc., was sent by first class United States mail, postage prepaid, this 8th day of April 1992, to the following:

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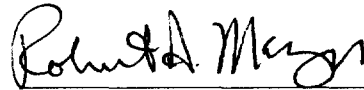
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